

Notice of Allowability**Application No.**

10/668,745

Applicant(s)

BOGGS ET AL.

Examiner

Tuan T. Dinh

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/09/09.
2. ☒ The allowed claim(s) is/are 1-6,9-10,13-15 (renumber claims are 1-11).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 04/21/09.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Tuan T Dinh/
Primary Examiner, Art Unit 2841

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Paul G. Kegley (Reg. No. 60,336) on 04/21/09.

The application has been amended as follows:

For the title:

Please, change "METHOD AND APPARATUS FOR PROVIDING AN INTEGRATED PRINTED CIRCUIT BOARD REGISTRATION COUPON" to - - **APPARATUS FOR PROVIDING AN INTEGRATED PRINTED CIRCUIT BOARD REGISTRATION COUPON** - -.

For claim 1:

1. (**Currently Amended**) A device **forms a printed circuit board, said printed circuit board** comprising:

a first major exterior surface;

a second major exterior surface, at least one of the first major exterior surface and the second major exterior surface including a plurality of component mounting pads;

a signal carrying plated through hole terminating at the at least one of the first major surface and the second major exterior surface;

a pad between the first major surface and the second major surface, the signal carrying plated through hole connected to the pad;

an antipad element substantially surrounding the pad;

a plane metallization layer within the device substantially surrounding the pad and the antipad;

a plated through hole attached to the plane metallization layer and terminating at the at least one of the first major exterior surface and the second major exterior surface including the plurality of component mounting pads, the plated through hole attached to the plane metallization layer, and electrically isolated from the plurality of component mounting pads; and

a circuit tester ~~for determining~~ to determine if a current will flow between the pad and the signal carrying via, and the plane metallization layer to test the spacing of a the plane metallization layer from a the signal through hole that passes through the plane metallization layer.

5. **(Currently Amended)** The device of claim 1 ~~further comprising a~~ wherein the signal carrying plated through hole which passes though the plane metallization layer within the device and terminates at the component mounting pad at the at least one of the first major exterior surface and the second major exterior surface including the plurality of component mounting pads.

7-8. **(Cancelled)**.

10. (**Currently Amended**) A system comprising:
- a processor;
 - a memory communicatively coupled to the processor; and
 - a device **comprising: a printed circuit board**, associated with at least one of the memory or the processor further including:
 - a first major exterior surface;
 - a second major exterior surface, at least one of the first major exterior surface and the second major exterior surface including a plurality of component mounting pads;
 - a signal carrying plated through hole terminating at the at least one of the first major surface and the second major exterior surface;
 - a pad between the first major surface and the second major surface, the signal carrying plated through hole connected to the pad;
 - an antipad element substantially surrounding the pad;
 - a plane metallization layer substantially surrounding the pad and antipad within the device; and
 - a plated through hole attached to the plane metallization layer and terminating at the at least one of the first major exterior surface and the second major exterior surface including the plurality of component mounting pads, the plated through hole attached to the plane metallization layer electrically isolated from the plurality of component mounting pads; and

a circuit test apparatus ~~for testing~~ **to test** the spacing between the plane metallization layer and the pad associated with the signal carrying through hole.

11-12. **(Cancelled)**.

17-20. **(Cancelled)**.

28-33. **(Cancelled)**.

Allowable Subject Matter

2. Claims 1-6, 9-10, 13-15 are allowed (renumber claims are 1-11).

The following is an examiner's statement of reasons for allowance: Amended claims in the examiner's amendment have been considered and upon conclusion of a comprehensive search of the prior arts. The Office indicates that the claims, as amended, are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan T Dinh/
Primary Examiner, Art Unit 2841.